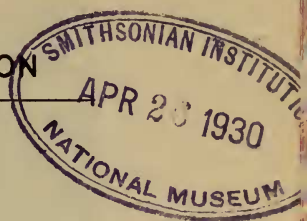


PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTONURSUS HOLZWORTHI, A NEW GRIZZLY FROM THE  
TALKEETNA MOUNTAINS, ALASKA.

BY C. HART MERRIAM.

John M. Holzworth of New York, who for several seasons has hunted big bears in Alaska and British Columbia and has succeeded in taking a remarkable series of photographs and moving pictures of some of the big Alaska bears, has recently presented the Biological Survey with the skull of a large male Grizzly killed by him on the east slope of the Talkeetna Mountains near the headwaters of the Oshetna or the Black River. The locality is nearly due north of the Matanuska region and about fifty miles northnortheast of Chickaloon.

*Ursus holzworthi*, sp. nov.

Type No. 248691, ♂ ad., U. S. National Museum, Biological Survey Coll., from Talkeetna Mts., Alaska. Collected September 23, 1928, by John M. Holzworth.

*Cranial characters.*—Compared with the type of *ressonus*: Basilar length about 1½ inch shorter; frontal region, though arched over orbits, decidedly less highly and less abruptly elevated; sagittal crest shorter and less produced posteriorly; postorbital breadth (135 mm.) practically identical with that of *ressonus*, but interorbital breadth much less (85 contrasted with 96); zygomatic breadth about the same; anterior nares closely similar (rather truncate—not strongly sloping as in many species); palate flat with postpalatal shelf about as in *ressonus*; nasal region rather short, sloping strongly to frontals, which are not nearly so high as in *ressonus*; frontal sulcus very shallow, contrasting with the deeply sulcate groove of *ressonus*. The floor of the palate is broad and flat as in *ressonus*, showing no trace of the dishing between the posterior molars that is noticeable in *eximius*, and the postpalatal shelf is distinctly shorter than in *eximius*, the interpterygoid notch broader. In the underjaw the infraangular surface is distinctly shorter than in *eximius*, and the interior border of the ramus correspondingly longer. *Eximius* has an exceptionally narrow skull giving it the appearance of greater length. This narrowness is

conspicuous in the frontal, interorbital, and palatal regions; and the rostrum is obviously longer and the nares more sloping (less truncate). The canines and molars as already stated are much smaller than in *ressonus*, in this respect agreeing far better with *eximius*. In fact, the length of the upper series is essentially the same as that of *eximius*, but the canines are materially smaller. In the lower jaw particularly, the canines are notably weaker (thinner basally) than in *eximius*, and the carnassial is distinctly smaller. In both jaws the teeth are too badly worn to admit of comparison of cusps. Last upper molar only slightly emarginate. In total length the Holzworth skull agrees essentially with *eximius*, and therefore is considerably smaller than *ressonus*.

*Measurements.*—Condyle-basal length 357; basal length 339; basilar length of Hensel 333; occipito-sphenoid length 96; palatal length of Hensel 182; post-palatal length 150; foramen magnum to plane of last upper molar 180; occipito-nasal length 322; greatest length of skull 374; zygomatic breadth 243; interorbital breadth 85; postorbital breadth 135; breadth of postorbital constriction 72; breadth across mastoids 189; breadth across squamosal shelves 166; facial length (front of nasals to plane of postorbitals) 136; length of braincase (plane of postorbitals to junction of lamdoid and sagittal crest) 111; greatest breadth of rostrum (over canine roots) 89; height of rostrum at front of pm. <sup>4</sup> 70; height of cranium above palate at plane of postorbital processes 115; height of cranium at plane of intersphenoid suture 110.

Condyle of jaw to front of canine 244; mandibular symphysis to base of angular process 246; mandibular symphysis to subangular process 218; height of ramus between m<sub>2</sub> and m<sub>3</sub> 51; alveolus of m<sub>2</sub> to coronoid notch 75; alveolus of m<sub>3</sub> to condyle 94.

*Tooth measurements* (teeth worn).—Pm <sup>4</sup> length 18, breadth 14; m <sup>1</sup> (too badly worn to admit of measurement); m <sup>2</sup> length 38.5, breadth 18; pm <sup>4</sup> length 13, breadth 8; m<sub>1</sub> length 25, breadth 12; m<sub>2</sub> length 26+, breadth 15.5; m<sub>3</sub> length 21.5; breadth 15+; upper molariform series 79; lower molars 56; diameter of lower canines 16; length upper incisor series 50.

*Remarks.*—Critical comparison of the skull of this specimen with those of other Alaska Grizzlies in the collection of the Biological Survey indicates that its nearest relative is *Ursus cressonus* from the Copper River region, the type of which was collected on Lakina River in 1914 by Capt. J. B. Hubrick.

The Holzworth skull is of the normal generalized *ursine* type—lacking the highly arched frontals or other striking characters that distinguish some of the species. It is an old male, nearly if not quite as old as the type of *cressonus*, from which it differs in somewhat smaller size, less development of the sagittal crest, much less posterior overhang, less elevation of the frontal shield, blunter and more outstanding (less decurved) postorbital processes, and much shallower frontal sulcus. The dentition is very much weaker than in *cressonus*, in this respect agreeing much more closely with *Ursus eximius* from Knick Arm, although the canines are even smaller and weaker than in *eximius*. In the Holzworth skull the molars are badly worn though much less so than in the type of *cressonus*. In *cressonus* the molars and canines are exceedingly broad and massive while in Holzworth's skull they are very much smaller and narrower.